



GOBIERNO DE
CHILE
COMISIÓN NACIONAL
DEL MEDIO AMBIENTE

Management of Mercury and Mercury-Containing Waste

Mercury Waste Project Final Workshop
June 2010

Environment

- Chile has a Environmental National Commission (CONAMA). In this moment project law is reviewing by Congress to implement the Ministry of Environment . (august 2010)
- At the same time, the highest Environmental Authority of Chile is the Ministries´s Council
- The main function of CONAMA is the coordination the different sector (public, private and NGOs) and to enact quality and release norms.





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Management of Mercury and Mercury-Containing Waste Project

General Objectives



- To identify concentrations levels of mercury in soil (Andacollo city, pilot project)
- To study technical-economic pre feasibility to remediation of mining tale
- Development of a National mercury waste management Plan

Methodology



- ✓ Review of quantitative and qualitative data from the National Inventory of Mercury sources
- ✓ Priorization of mercury sources and corresponding sectors (pathway release "waste" and soil)
- ✓ Application of environmentally sound management (ESM) guidelines in selected sources and sectors
- ✓ Sampling and mercury analysis of environmental samples in Andacollo city

Expected Outcomes

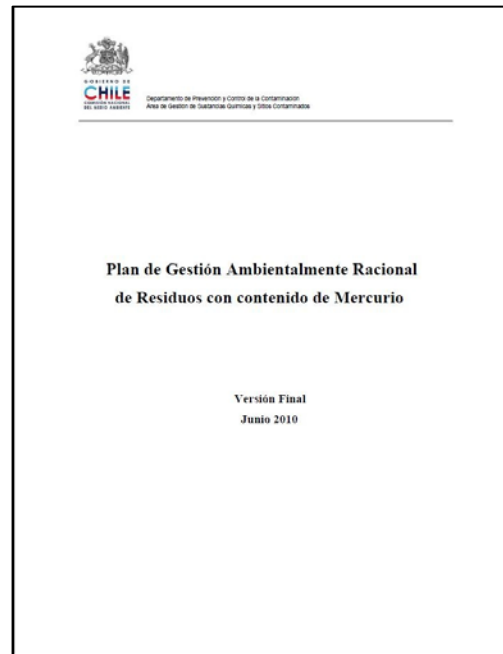
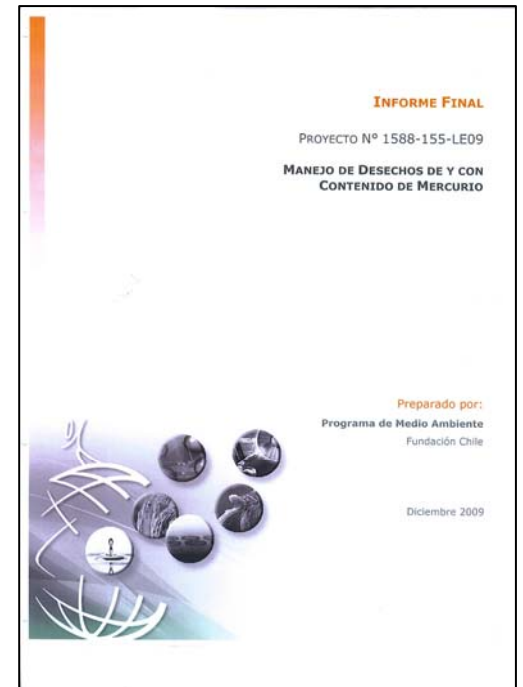


- ✓ Identification mercury concentration levels in soil
- ✓ Economic value of metals contained sites/tailing assessed
- ✓ National Mercury Waste Management Plan developed



Results

Management mercury and mercury containing waste project



National Mercury Waste Management Plan





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Specific Objectives



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1



Application identification
Environmentally Sound
Management Guidelines (ESM)
Basel Convention

2



Assessment and database of
Laboratory (Samples and Analysis
of Mercury)

3



Risk Assessment and Remediation
options in maining tale site of
Andacollo

Main Activities Achieved

1.- Application identification Environmentally Sound Management Guidelines (ESM) Basel Convention



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Application Specific comments for each chapter of the ESM Guide

Identification of strengths of the ESM Guideline

Identification of weaknesses of the ESM Guideline

Main Activities Achieved

2.- Assessment and database of Laboratory (Samples and Analysis of Mercury)



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Get an overview of the laboratories

Get information about the type of parent who analyze

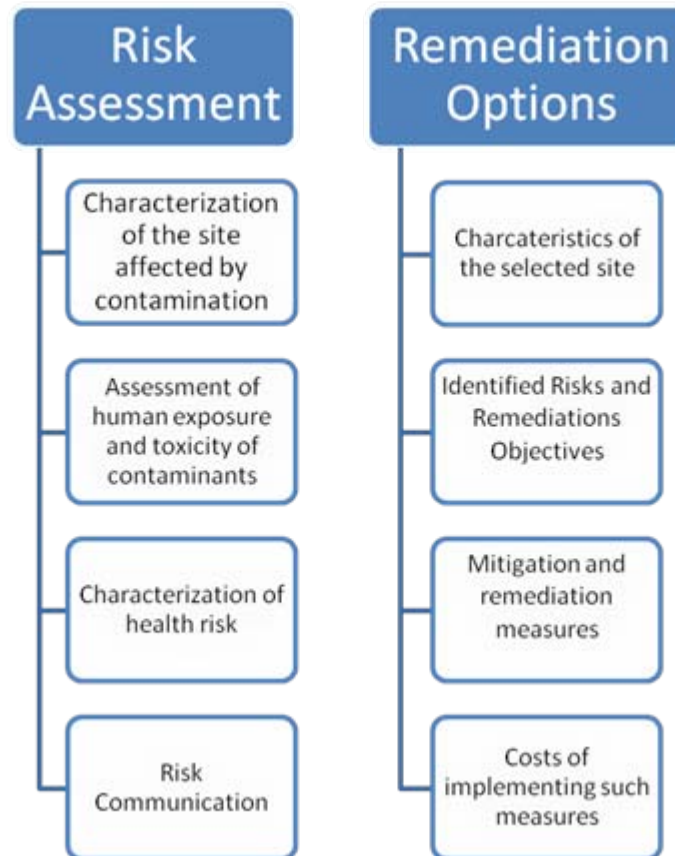
Learn the techniques used for such analysis

Main Activities Achieved

3.- Risk Assessment and Remediation options in maining tale site of Andacollo



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National Mercury and Waste Management Plan



OBJECTIVES

GENERAL OBJECTIVE

Guide the management of waste containing mercury to environmentally sound management of such waste to include variables in their analysis of health risk and / or the environment.

SPECIFIC OBJECTIVES

- 1. Review and improve the quality of the information contained in the "National Inventory of Uses, Consumption and Mercury releases"*
- 2. To encourage the generation and application of voluntary and mandatory instruments for the environmentally sound management of waste containing mercury*
- 3. To promote studies to identify sites with the presence of waste containing mercury, the risk and environmentally sound management.*
- 4. Raise awareness and build capacity in those involved in the environmentally sound management of waste containing mercury*



Implementing Process

Relevant actors

- ✓ Ministry of Health (MINSAL)
- ✓ Ministry of Mining (MINMINERIA)
- ✓ Ministry of Education (MINEDUC)
- ✓ National Customs Service
- ✓ National Service of Geology and Mining (SERNAGEOMIN)
- ✓ Corporation for Production Development (CORFO)
- ✓ Chilean Copper Commission (COCHILCO)
- ✓ National Mining Company (ENAMI)
- ✓ Agricultural and Livestock Service (SAG)
- ✓ National Fisheries Service (SERNAPESCA)
- ✓ National Clean Production Council (CPL)
- ✓ Chilean Association of Municipalities (ACHM)
- ✓ National Mining Society of Chile (SONAMI)
- ✓ Mining Council (CM)
- ✓ Metallurgical Mining Research Center (CIMM)
- ✓ College of Dentists and Dental Schools
- ✓ Confederation of Production and Trade (CPC)
- ✓ Society for Industrial Development (SOFOFA)
- ✓ Chemical Manufacturers Association (ASIQUIM)



Action Plan

Objective 1: *Review and improve the quality of the information contained in the "National Inventory of Uses, Consumption and Mercury releases"*

- 1.1 Standardize methods for mercury analysis and develop its own methodological guidelines that allows for estimates of mercury emissions under the national reality.
- 1.2 Review and generate new information on mercury-containing waste in the country and its management in order to develop reliable information, real and based on national surveys for purposes of updating the National Inventory of Uses, Consumption and Mercury releases
- 1.3 Complete the information recorded on mercury in the PRTR and other systems of public record
- 1.4 Improve scientific -technology knowledge on the waste containing Mercury and its integrated management



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Action Plan

Objective 2: To encourage the generation and application of voluntary and mandatory instruments for the environmentally sound management of waste containing mercury



- 2.1 Encourage the use of alternative technologies to the use of mercury
- 2.2 Voluntary initiatives to strengthen the management of waste containing mercury where there is a risk to health and the environment in public and private sector
- 2.3 Promote the generation of competitive funds and the inclusion in existing and those relevant to the problems associated with mercury-containing waste
- 2.4 To promote the environmentally sound management of waste mercury-containing instruments for environmental management / health and new instruments existing ad-hoc, to consider the relevant risk assessments.

Action Plan

Objective 3: To promote studies to identify sites with the presence of waste containing mercury, the risk and environmentally sound management.

- 3.1 Conduct studies to identify sites with the presence of mercury-containing waste and potentially hazardous to human health or the environment.
- 3.2 Describe priority sites
- 3.3 Evaluate the technical feasibility and economic control measures (mitigation, repair and / or remediation) in priority sites, after confirmatory research
- 3.4 Prepare and develop a risk communication strategy



Action Plan

Objective 4: Raise awareness and build capacity in those involved in the environmentally sound management of waste containing mercury



- 4.1 Spreading the list of household products developed within the framework of SAICM and other matters related to mercury-containing waste and its proper handling, to the community and education and academic sector
- 4.2 Design programs to raise awareness and generate lines of training to specific target audiences
- 4.3 Promote and revitalize roundtable discussions with various sectors related to the management of waste containing mercury



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